

UNIVERSITI TEKNOLOGI MARA

**WATER CONTAMINATION DETECTOR WITH
IOT**

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ABSTRACT

When talking about liquids, turbidity is important since it's a critical factor in determining how pure a liquid is and comprehending how liquids behave. A liquid's clarity or cloudiness is determined by its degree or amount of turbidity. This is what happens when air compresses and fills with a plethora of tiny, invisible particles that seem like white smoke. These particles affect the liquid's overall appearance by adding to its turbidity. As a result, in the field of liquid dynamics, turbidity is essential for determining the quality of water as it gives information about the liquid's appearance. The amount of turbidity in a liquid is directly related to its clarity or cloudiness. The process of compressing air creates many little particles that resemble white smoke and establishes this link. These particles change the liquid's optical characteristics, influencing how clear or hazy it looks, as they spread throughout the liquid. To put it simply, understanding turbidity becomes critical when assessing the purity of water since it provides a concrete measure to assess the visible features of liquid quality. In conclusion, turbidity is a key component of liquid dynamics theory as well as an important criterion for assessing the cleanliness of water. A liquid's turbidity is a direct result of invisible particles present due to air compression, which affects the liquid's appearance. This comprehension of turbidity is crucial for evaluating and controlling the quality of water, guaranteeing a thorough awareness of the nuances of liquid dynamics.

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CHAPTER ONE

INTRODUCTION

1.1 RESEARCH BACKGROUND

Cleanliness of water in water tank is essential for every household. The water will be used for various purposes such as drinking, bathing, and cooking. Thus, it is important to keep the water free from contaminations. Contaminated water is a great source of waterborne diseases. For examples of waterborne diseases are diarrhea, cholera, dysentery, giardiasis, and typhoid fever. In case of severe diarrhea can cause to dehydration. Dehydration can be life threatening especially for toddlers and elderly populations. When exposed to contaminated water for very long time can contribute to chronic health issue. This is because in a long period of exposure, it weakens human's body immune system. Thus, making the individual more likely to get infections and illnesses.

Other than that, contaminated water when discharged into natural water body can lead to environmental pollution. This effecting the aquatic ecosystem, disrupting flora and fauna and reducing the quality of water for plants and people living downstream. Contaminated water if used in irrigation can caused contaminated crops.

Besides, water contamination can have economic repercussions due to increased healthcare costs, lost productivity, and expenses related to water treatment and remediation efforts.

1.2 PROBLEM STATEMENT

The creation of water contamination systems is a response to several problems related to water quality and public health. Some of the issues that lead to the development of these systems are industrial and agricultural activities. Industrial and agricultural activities produce various chemicals and pollutants that can enter water sources and contaminate them. This contamination can harm human health and the